

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F16H57/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F16H F16C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	PATENT ABSTRACTS OF JAPAN vol. 1998, no. 09, 31 July 1998 (1998-07-31) -& JP 10 096463 A (HITACHI LTD), 14 April 1998 (1998-04-14) abstract; figures	1-19
Y	ANONYMOUS: "Tapered Roller Bearings-Single Row" INTERNET ARTICLE, 19 February 2003 (2003-02-19), XP002306031 Retrieved from the Internet: <URL:http://web.archive.org/web/2003021913 2344/http://www.timken.com/products/bearin gs/products/TaperedRollerBearings/singlero w.asp> 'retrieved on 2004-10-27! the whole document	1-19

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

* & * document member of the same patent family

Date of the actual completion of the international search

17 November 2004

Date of mailing of the international search report

07/12/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Goeman, F

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	SCHIEMANN S: "LAGERUNGEN DER WELLEN UND ZAHNRAEDER IN STIRNRADGETRIEBEN" ANTRIEBSTECHNIK, KRAUSSKOPF VERLAG FUR WIRTSCHAFT GMBH. MAINZ, DE, vol. 32, no. 7, 1 July 1993 (1993-07-01), pages 34,36-39, XP000386027 ISSN: 0722-8546 the whole document	1,10
A	DE 44 38 500 A (INST MASCHINENELEMENTE UNI STU) 2 May 1996 (1996-05-02) figures	1,10
A	US 3 689 127 A (HAMPP WILHELM ET AL) 5 September 1972 (1972-09-05) figures	1,10
A	US 3 397 020 A (EDWARDS HERBERT C) 13 August 1968 (1968-08-13) figures	1,10
A	US 3 420 589 A (WILLIAMS ROBERT L ET AL) 7 January 1969 (1969-01-07) figures	1,10
A	US 4 136 916 A (MUSSELMAN LAWRENCE L ET AL) 30 January 1979 (1979-01-30) figures	1,10
A	EP 1 227 255 A (UNITED TECHNOLOGIES CORP) 31 July 2002 (2002-07-31) figure 1	1,10

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
JP 10096463	A	14-04-1998	NONE		
DE 4438500	A	02-05-1996	DE	4438500 A1	02-05-1996
US 3689127	A	05-09-1972	FR	2041802 A5	05-02-1971
			GB	1313699 A	18-04-1973
			NL	7006478 A	04-11-1970
US 3397020	A	13-08-1968	BE	687390 A	28-03-1967
			CH	461188 A	15-08-1968
			FR	1494023 A	01-09-1967
			GB	1123480 A	14-08-1968
			LU	52108 A1	05-04-1967
			NL	6613364 A	17-08-1967
US 3420589	A	07-01-1969	BE	698876 A	23-11-1967
			CH	463886 A	15-10-1968
			ES	340772 A1	16-09-1968
			FR	1539010 A	13-09-1968
			GB	1161837 A	20-08-1969
			LU	53774 A1	20-03-1969
			NL	6707293 A	01-03-1968
			SE	377169 B	23-06-1975
US 4136916	A	30-01-1979	AU	510672 B2	10-07-1980
			AU	3748578 A	03-01-1980
			BE	868439 A1	27-12-1978
			DE	2828159 A1	11-01-1979
			FR	2396203 A1	26-01-1979
			GB	1598530 A	23-09-1981
			IT	1105714 B	04-11-1985
			JP	1140761 C	24-03-1983
			JP	54012064 A	29-01-1979
			JP	55009570 B	11-03-1980
			SE	7806192 A	28-12-1978
EP 1227255	A	31-07-2002	US	6464401 B1	15-10-2002
			EP	1227255 A2	31-07-2002
			JP	2002286030 A	03-10-2002